

## 24 x 48 Totalizers CTR24 non-backlit model Part number 87622062



- Display : 8-digit LCD, height 8 mm
- Powered by a lithium battery
- Counter inputs : solid state (4-30 VDC) or voltage (10 →260 VAC)
- Reset on panel or external with inhibition option
- Backlit model (2341-2351-2342)
- Counting directions can be selected with input (2241-2341/2251-2351)
- Accessories for 50 x 25 mm cut-out

### Part numbers

|          | Type                    | Type | Functions                                  |
|----------|-------------------------|------|--------------------------------------------|
| 87622062 | CTR24 non-backlit model | 2251 | Solid state input, lithium battery NPN/NPN |

### Specifications

#### Physical details and protection

|                                                   |                                     |
|---------------------------------------------------|-------------------------------------|
| Consumption                                       | Backlighting : 24 VDC± 20 % 50 mA   |
| Connection by 8 screw terminals at rear of casing | ■                                   |
| Connection capacity                               | 1,5 mm <sup>2</sup>                 |
| Fixed using bracket                               | ■                                   |
| Degree of protection front face                   | IP 65                               |
| Temperature limits use (°C)                       | -10 →+60                            |
| Temperature limits stored (°C)                    | -20 →+70                            |
| Breakdown voltage                                 | EN 61010-1 : 2000 V / 50 Hz / 1 min |
| Conformity to standards                           | EN 61000-6-2 - EN 55011 class B     |
| Altitude                                          | 2000 m                              |
| Certifications                                    | UL - cULus (pending) - CE           |
| Weight (g)                                        | 50                                  |

#### Operating characteristics

|                    |                                                  |
|--------------------|--------------------------------------------------|
| Function           | Impulse counter                                  |
| Display            | 8-digit LCD                                      |
| Height digits (mm) | 8                                                |
| Counting capacity  | -9,999,999 →99,999,999 with elimination of zeros |

#### Input 2241-2341

|                                                                                                  |                           |
|--------------------------------------------------------------------------------------------------|---------------------------|
| 1 slow counting input for contact closure on NPN open-collector transistor input (terminals 2-6) | ■                         |
| 1 input for high speed counting signal from voltage level (terminals 1-6)                        | 4 →30 VDC                 |
| Low level                                                                                        | 0 →0,7 VDC                |
| High level                                                                                       | 4 →30 VDC PNP             |
| High-speed counting                                                                              | 12 K Hz max.<br>42 µs PNP |
| Input impedance                                                                                  | 100 KΩ PNP                |

#### Input 2251-2351

|                                                                                                  |                          |
|--------------------------------------------------------------------------------------------------|--------------------------|
| 1 slow counting input for contact closure on NPN open-collector transistor input (terminals 2-6) | ■                        |
| 1 input for high speed counting signal from voltage level (terminals 1-6)                        | 3 →30 VDC                |
| Low level                                                                                        | 0 →0,7 VDC               |
| High level                                                                                       | 3 →30 VDC                |
| High-speed counting                                                                              | 7 K Hz max.<br>70 µs NPN |
| Input impedance                                                                                  | 1 MΩ                     |

#### Reset to zero - External 2241-2341 & 2251-2351

|                                                     |   |
|-----------------------------------------------------|---|
| Volt-free contact or open collector (terminals 3-6) | ■ |
|-----------------------------------------------------|---|

#### Input 2242-2342

|                                            |                |
|--------------------------------------------|----------------|
| 1 input for slow counting 2 voltage levels | ■              |
| Voltage - Terminals 1-2                    | 10 →260 VAC/DC |
| Input impedance (kΩ)                       | 160            |
| Slow counting                              | 30 Hz          |
| Minimum pulse time                         | 16 ms          |
| Low level                                  | 0 →2 VAC/DC    |
| High level                                 | 10 →260 VAC/DC |

#### Reset to zero - External 2242-2342

|                         |       |
|-------------------------|-------|
| Voltage - Terminals 2-3 | ■     |
| Minimum pulse time      | 16 ms |

|            |                 |
|------------|-----------------|
| Low level  | 0 → 2 VAC/DC    |
| High level | 10 → 260 VAC/DC |

**Reset to zero - Panel**

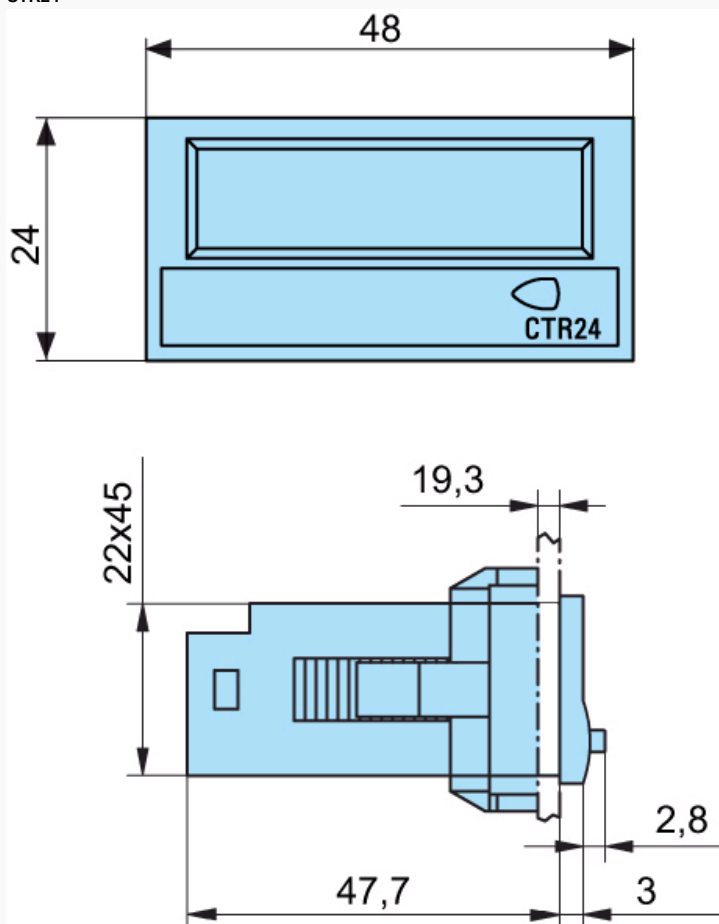
|           |                                                                             |
|-----------|-----------------------------------------------------------------------------|
| Reset via | Inhibited : Terminals 4-6 not connected<br>Active : Terminals 4-6 connected |
|-----------|-----------------------------------------------------------------------------|

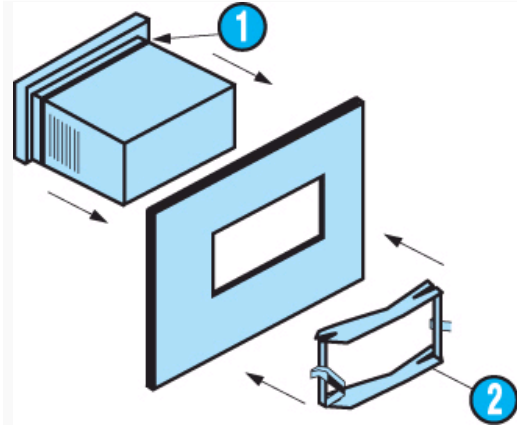
**Supply**

|                                  |   |
|----------------------------------|---|
| 1 lithium battery - Life (years) | 8 |
|----------------------------------|---|

**Accessories**

| Description                                        | Code     |
|----------------------------------------------------|----------|
| Adaptor for 50 x 25 mm cut-out - Fixed with screws | 26546843 |
| Adaptor for 50 x 25 mm cut-out - Fixed with clips  | 26546844 |
| DIN rail adaptor                                   | 26546840 |
| Clip-fixing kit (supplied with the product)        | 26546848 |

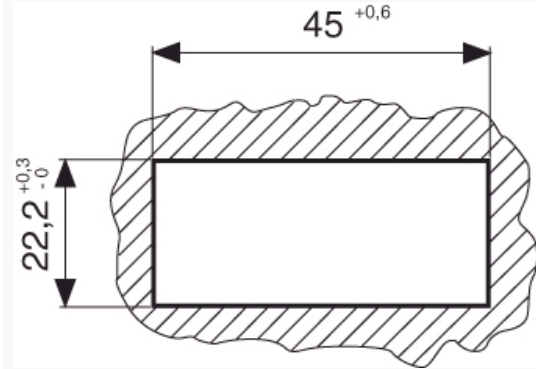
**Dimensions (mm)****CTR24****Dimensions (mm)****Fixing strip with clip-on yoke**



| N° | Legend      |
|----|-------------|
| 1  | Seal        |
| 2  | Fixing yoke |

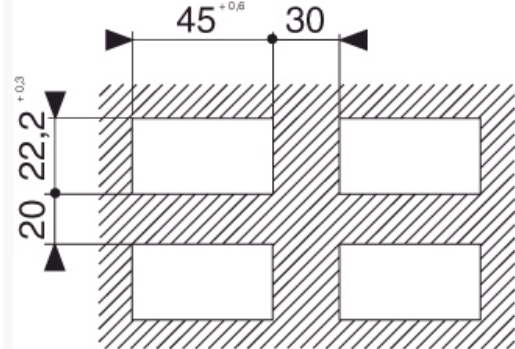
Dimensions (mm)

Panel cut-out



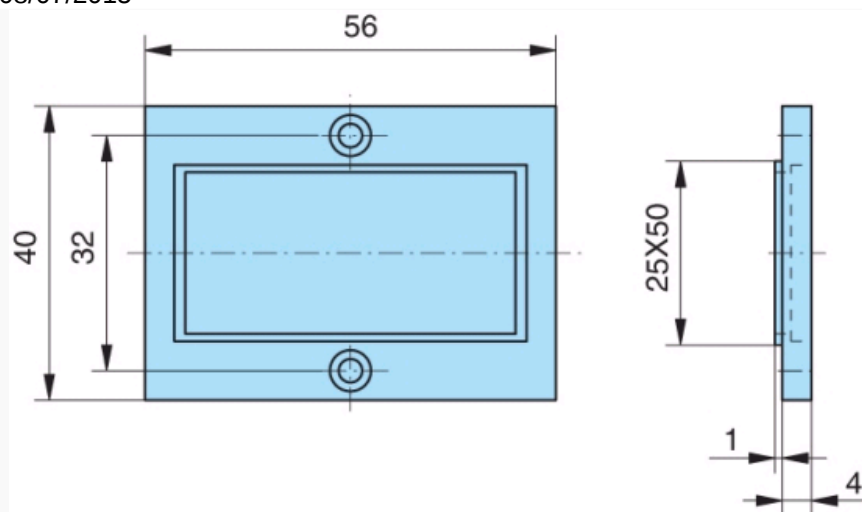
Dimensions (mm)

4 appliances



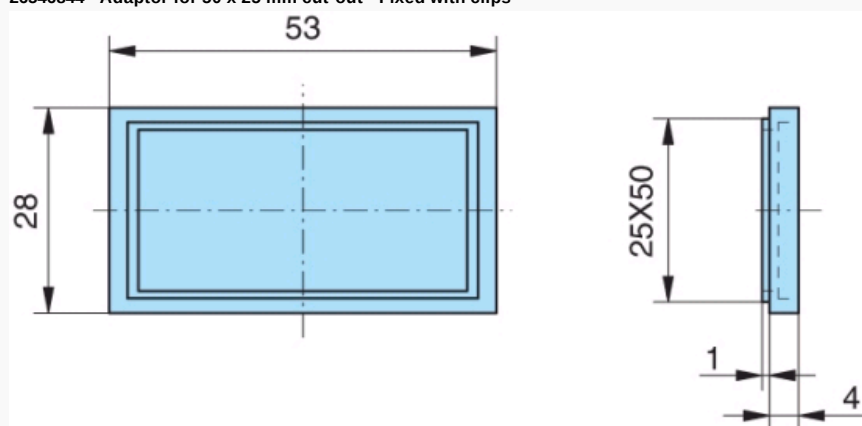
Dimensions (mm)

26546843 - Adaptor for 50 x 25 mm cut-out - Fixed with screws



#### Dimensions (mm)

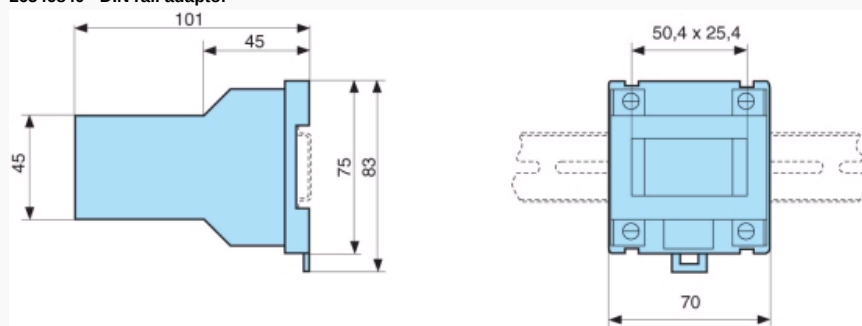
26546844 - Adaptor for 50 x 25 mm cut-out - Fixed with clips



Accessory supplied with the counter

#### Dimensions (mm)

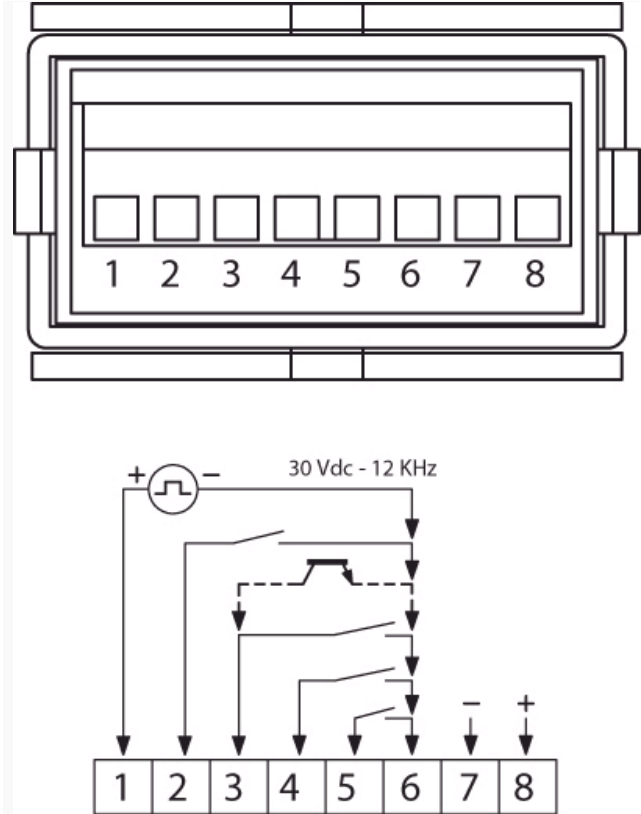
26546840 - DIN rail adaptor



Accessory supplied with the counter

#### Connections

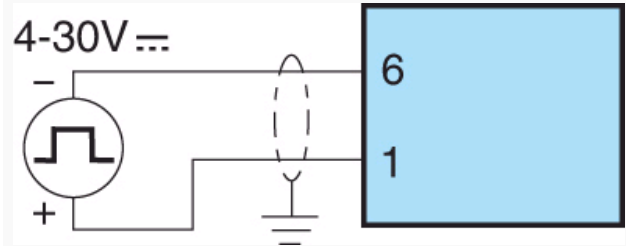
2241-2341



| N° | Legend                                   |
|----|------------------------------------------|
| 1  | Fast count                               |
| 2  | Slow count                               |
| 3  | Reset input 12 ms                        |
| 4  | Enable panel reset                       |
| 5  | Mode 1count direction                    |
| 6  | 0 V common/ (BL- only 23xx)              |
| 7  | Backlighting option (only 2341)          |
| 8  | Backlighting option + 24 VDC (only 2341) |

Connections

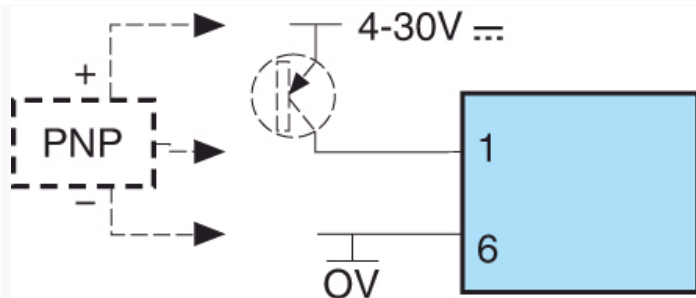
2241-2341



PNP fast count input - Voltage

Connections

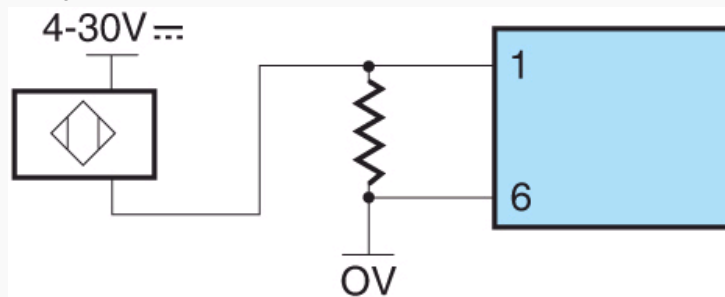
2241-2341



PNP fast count input Transistor or 3-wire PNP proximity sensor (for leakage current detector  $\leq 1$  mA)

#### Connections

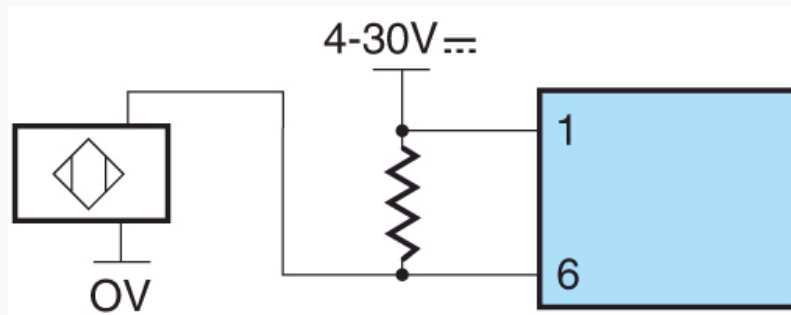
2241-2341



2-wire proximity sensor fast count input

#### Connections

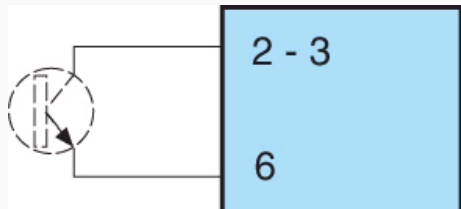
2241-2341



2-wire proximity sensor fast count input

#### Connections

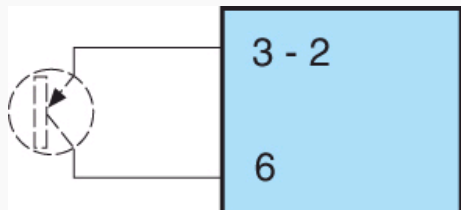
2241-2341



Slow count input (2) or reset input (3)

#### Connections

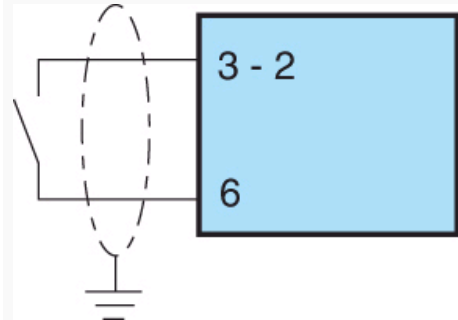
2241-2341



Slow count input (2) or reset input (3) - Contact not supplied with power

Connections

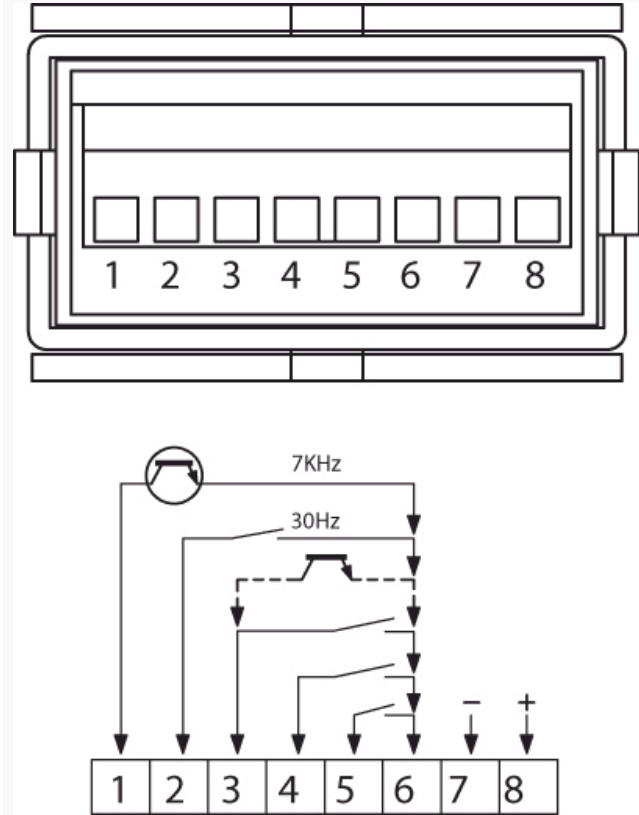
2241-2341



Slow count input (2) or reset input (3) - Contact not supplied with power

Connections

2251-2351

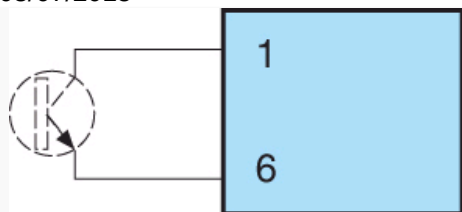


Slow count input (2) or reset input (3) - Contact not supplied with power

| N° | Legend                                   |
|----|------------------------------------------|
| 1  | Fast count                               |
| 2  | Slow count                               |
| 3  | Reset input 12 ms                        |
| 4  | Enable panel reset                       |
| 5  | Mode 1 count direction                   |
| 6  | 0 V common/ (BL- only 23xx)              |
| 7  | Backlighting option - (only 2351)        |
| 8  | Backlighting option + 24 VDC (only 2351) |

Connections

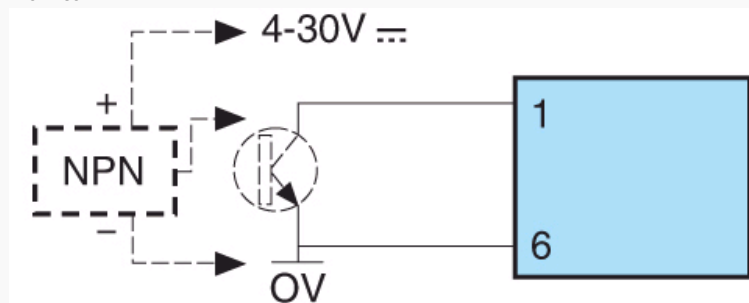
2251-2351



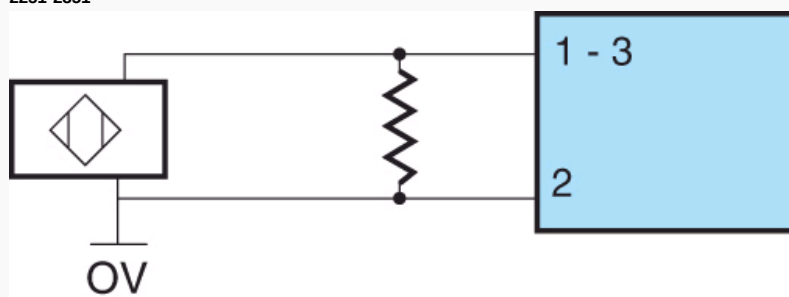
Fast count input NPN - Voltage

**Connections**

2251-2351

Fast count input NPN Transistor or 3-wire PNP proximity sensor (for leakage current detector  $\leq 1$  mA)**Connections**

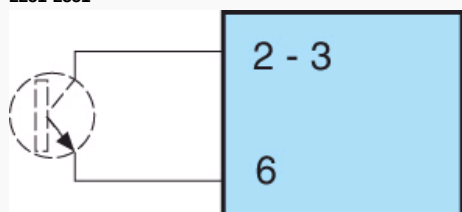
2251-2351



2-wire proximity sensor fast count input

**Connections**

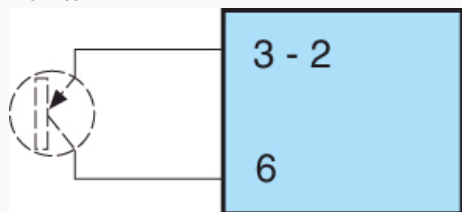
2251-2351



Slow count input (2) or reset input (3)

**Connections**

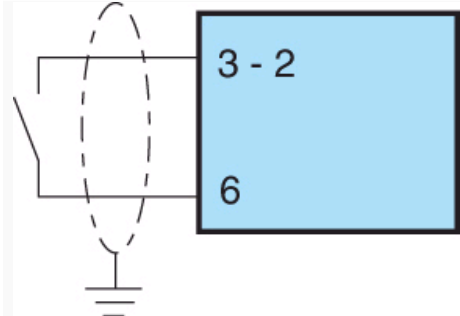
2251-2351



Slow count input (2) or reset input (3)

**Connections**

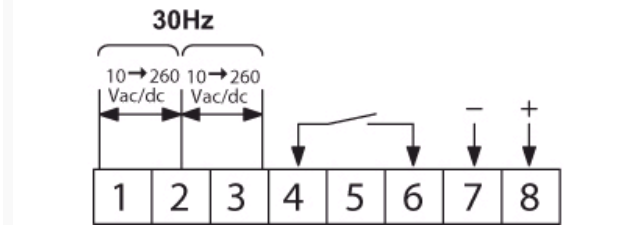
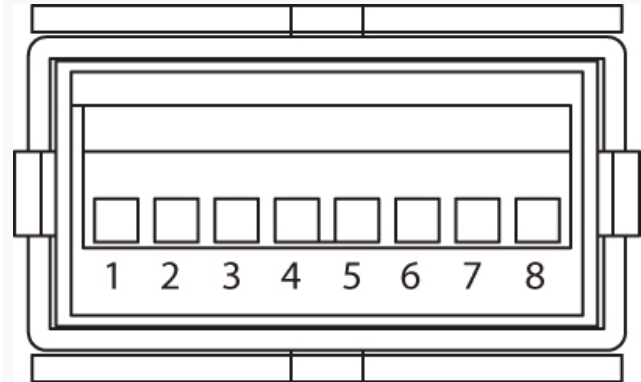
2251-2351



Slow count input (2) or reset input (3) - Contact not supplied with power

Connections

2242-2342

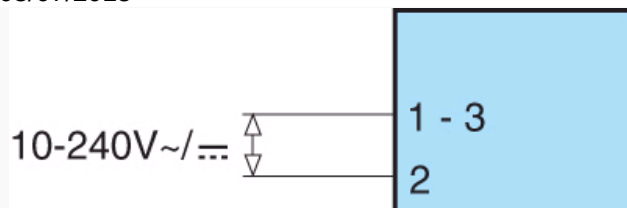


Slow count input (2) or reset input (3) - Contact not supplied with power

| N° | Legend                                   |
|----|------------------------------------------|
| 1  | Fast count                               |
| 2  | AC/DC common                             |
| 3  | Reset input 12 ms                        |
| 4  | Enable panel reset                       |
| 5  | NC                                       |
| 6  | 0 V common/ (BL- only 23xx)              |
| 7  | Backlighting option - (only 2342)        |
| 8  | Backlighting option + 24 VDC (only 2342) |

Connections

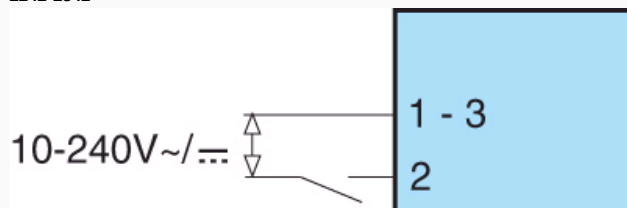
2242-2342



Counter or reset input - Voltage

#### Connections

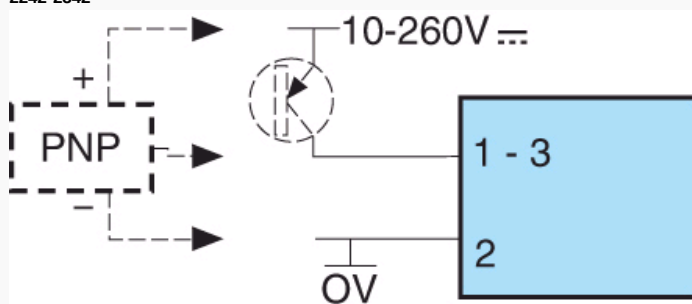
2242-2342



Counter or reset input - Contact supplied with power

#### Connections

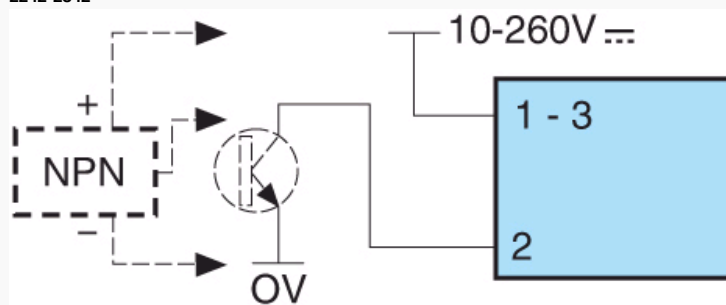
2242-2342



Counter or reset input PNP Transistor or 3-wire PNP proximity sensor (for leakage current detector < 1 mA)

#### Connections

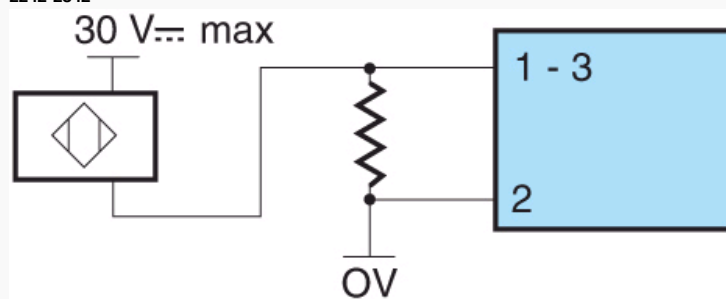
2242-2342



Counter or reset input NPN Transistor or 3-wire PNP proximity sensor (for leakage current detector < 1 mA)

#### Connections

2242-2342



Start/Stop or reset input : 2-wire proximity sensor R=470  $\Omega$ /2 W for 2-wire leakage current detector  $\leq 1$  mA